Remarks

In response to the Office Action mailed May 8th, 2006, Applicant respectfully requests reconsideration. To further the prosecution of the application, claims 3-6, 12-16, 22, 31, 32 and 35 have been amended, and claims 1, 2, 20 and 21 have been amended. Accordingly, claims 3-19 and 22-42 are pending in the application with claims 3, 12, 15, 22, 31, and 39 in independent form. The application as amended is believed to be in allowable condition.

The undersigned Applicant's Attorney would like to thank Examiners Rutland-Wallis and Deberadinis for participating in a telephone interview on September 12, 2006. During the interview, claims 3 and 4 were discussed and the prior art references Edevold (U.S. Patent No. 6,292,379) and Jungreis (U.S. Patent No. 6,184,593) were discussed. During the interview, combinations of the references were discussed as well as possible amendments to the claims. Agreement was reached generally, but specific amendments were not discussed in detail.

Claims 4, 5 and 6 have been objected to based on the use of the term "period" without an identification of the period as a time period or waveform period. Without acceding to the correctness of the objection, to further the prosecution of the application, each of these claims has been amended, as suggested in the Office Action, and the objection to the claims should be withdrawn.

Claims 1 and 20 have been rejected under 35 U.S.C. §102(b) as being anticipated by Jungreis. Without acceding to the correctness of the rejection, to further the prosecution of the application, claims 1 and 20 have been cancelled herein.

Claims 1-6, 12-14, 16 and 18-42 have been rejected under 35 U.S.C. §103as being unpatentable over Edevold in view of Jungreis. Without acceding to the correctness of the rejection, to further the prosecution of the application, claims 1, 2, 20 and 21 have been cancelled. As discussed below in detail, it is not clear how the references are being combined, and in any case, the claims as amended are patentably distinguishable over the references as discussed below.

The Office Action states that it would have been obvious to one of ordinary skill in the art to modify Edevold to use a secondary AC source in place of the additional battery banks of Edevold. The Office Action further states:

> "Edevold teaches a secondary bypass device (item 64) coupled to the secondary power sources. While the second bypass device of Edevold is connected to inversion circuitry due to the fact that it is supplied from a DC source one of ordinary skill in the art would recognize that Edevold as modified in claim 2 to contain a secondary AC source would not require such circuitry and therefore the would be coupled to provide the AC power directly to the output bypassing any conversion circuitry."

In the proposed combination, it appears that an additional AC source is coupled directly to the output 18 in the system 10 of Edevold, possibly through the output relay 64. One of ordinary skill in the art would not have been motivated to combine the references in this manner. First, the output relay is used to disconnect the inverter 20 from the output 18. (See, Edevold at col. 8, lines 52-55). If the connection of the relay was changed, it would not serve its stated purpose. Second, if the coupling of the relay was changed, it is not clear how the output of the inverter circuit 20 would couple to the output 18. Since one of ordinary skill in the art would not have been motivated to combine the references as suggested, the combination of references is improper and the rejection of claims 3-6, 12-14, 16 and 18-42 under 35 U.S.C. §103 as being unpatentable over Edevold in view of Jungreis should be withdrawn.

Even if the references were combined as suggested in the Office Action, claims 3-6, 12-14, 16 and 18-42 are patentably distinguishable over the combination. Claim 3 has been amended herein, and as amended is directed to a system for providing power to a load. The system includes a first input to receive AC power from a first AC power source, a second input to receive AC power from a second AC power source, a third input to receive DC power from a first DC power source, an output that provides output AC power to the load, converter circuitry, coupled to the first, second and third inputs and the output, and controllable to select from the first AC power source, the second AC power source and the first DC power source to provide input power and derive the output AC power from the input power, a first bypass device coupled to the first input and the output and controllable to operate in a bypass mode to couple the first input to the output to provide AC power from the first AC power source directly to the output,

bypassing the converter circuitry; and a second bypass device coupled to the second input and the output and controllable to operate in a bypass mode to couple the second input to the output to provide AC power from the second AC power source directly to the output, bypassing the converter circuitry.

The proposed combination of references does not include all of the limitations of claim 3. Specifically, the combination does not include the converter circuitry of claim 3. In claim 3, the converter circuitry is controllable to select from the first AC power source, the second AC power source and the first DC power source to provide input power and derive the output AC power from the input power. In the proposed combination, the inverter of Edevold is not controllable to derive output power from the second power source. As best understood, in the combination, the inverter is bypassed with the addition of the second power source. Based on the foregoing, claim 3 is patentably distinguishable over the proposed combination of references, and the rejection of claim 3 should be withdrawn.

Claims 4, 5 and 6 depend from claim 3 and are patentable for at least the same reasons.

Independent claim 12 has been amended herein and is directed to a system for providing power to a load. The system includes a first input to receive AC power from a first AC power source, a second input to receive AC power from a second AC power source, a third input to receive DC power from a first DC power source, an output that provides output AC power to the load, and converter circuitry, coupled to the first, second and third inputs and the output, adapted to provide the output AC power derived from at least one of the first AC power source, the second AC power source and the first DC power source, wherein the converter circuitry includes a plurality of controllable switches, each of the controllable switches being coupled to one of the first, second and third inputs to control current draw by the converter circuitry from the first AC power source, the second AC power source and the DC power source; wherein, in a first power source transition mode, the converter circuitry is adapted to detect an input AC voltage waveform period of the first AC power source and to control the controllable switches such that the converter circuitry draws current from the first AC power source during a positive portion of the waveform period and the converter circuitry draws current from the first DC power source during a negative portion of the waveform period for multiple waveform periods.

In contrast with claim 12, the combination of references does not disclose or suggest a system having converter circuitry adapted to control controllable switches such that the converter circuitry draws ***current from a first AC power source during a positive portion of a waveform period and from a first DC power source during a negative portion of the waveform period for multiple waveform periods***. Accordingly, claim 12 is patentably distinguishable over the combination of references, and the rejection of claim 12 under 35 U.S.C. §103 should be withdrawn.

Claims 13, 14, 18 and 19 depend from claim 12 and are patentable for at least the same reasons.

Claim 16 depends from claim 15 (discussed below) and is allowable for at least the same reasons.

Independent claim 22 has been amended herein and is directed to a system for providing power to a load. The system includes a first input to receive AC power from a first AC power source; a second input to receive AC power from a second AC power source; a third input to receive DC power from a first DC power source; an output that provides output AC power to the load, converter means for selecting from the first AC power source, the second AC power source and the first DC power as a source for input power and deriving the output AC power from the input power, and bypass means for selectively providing AC power from the first AC power source directly to the output, bypassing the converter means, wherein the bypass means include means for selectively providing AC power from the second AC power source directly to the output, bypassing the converter means.

In contrast with claim 22, the combination of references does not disclose or suggest a system having converter means for selecting from a first AC power source, a second AC power source and a first DC power as a source for input power and deriving the output AC power from the input power. In the proposed combination, the inverter of Edevold does not include converter means for deriving output power from a second power source. As best understood, in the combination, the inverter is bypassed with the addition of the second power source. Based on the foregoing, claim 22 is patentably distinguishable over the proposed combination of references, and the rejection of claim 22 should be withdrawn.

Claims 23-30 and 35-37 depend from claim 22 and are patentable for at least the same reasons.

Independent claim 31 has been amended herein and is directed to a system for providing power to a load. The system includes a first input to receive AC power from a first AC power source, a second input to receive AC power from a second AC power source, a third input to receive DC power from a first DC power source, an output that provides output AC power to the load, and converter means, coupled to the first, second and third inputs, for providing output power derived from at least one of the first AC power source, the second AC power source and the first DC power source. The converter means includes means for transitioning a draw of input current by the converter means from the first AC power source at the first input to the first DC power source at the third input, such that during a first transition period, input current is drawn by the converter means alternately from the first AC power source and the first DC power source.

In contrast with claim 31, the proposed combination of references does not include means for transitioning a draw of input current by converter means such that during a first transition period, input current is drawn ***alternately*** from a first DC power source and a first AC power source. Accordingly, claim 31 is patentably distinguishable over the proposed combination of references, and the rejection of claim 31 should be withdrawn.

Claims 32-34 and 38 depend from claim 31 and are patentable for at least the same reasons.

Independent claim 39 is directed to a method of providing power to a load using a UPS having a first AC source, a second AC source and a first DC source. The method includes coupling the first input of the UPS to the first AC source and providing output power to a load based on AC power from the first AC source, detecting a loss of the first AC source, coupling the first input of the UPS to the first DC source and providing output power from the UPS based on DC power from the first DC source, and transitioning a draw of input current at the first input from the first DC source to the second AC source by alternately coupling the first DC source and the second AC source to the first input of the UPS.

In contrast with claim 39, the proposed combination of references does not disclose or suggest a method of providing power that includes ***transitioning a draw of input current by alternately coupling a first DC source and a second AC source*** to a first input of a UPS. Accordingly, claim 39 is patentably distinguishable over the proposed combination of references, and the rejection of claim 39 should be withdrawn.

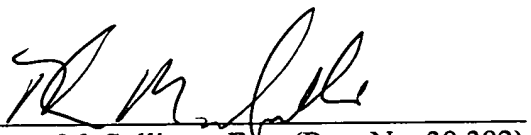
Claims 40-42 depend from claim 39 and are patentable for at least the same reasons.

Each of claims 7-11 and 15 and 17 has been objected to as being dependent on a rejected base claim but indicated as allowable if rewritten in independent for to include all of the limitations of its base claim and any intervening claims. Claims 7-11 depend from claim 3 and are patentable for at least the same reasons. Claim 15 has been rewritten in independent form and should be in allowable condition. Claim 17 depends from claim 15 and is allowable for at least the same reasons.

CONCLUSION

Based on the foregoing, the application is believed to be in allowable condition and a notice to that effect is respectfully requested. If the Examiner has any questions regarding the application, the Examiner is invited to contact the Applicant's Attorney at the number provided below.

Respectfully submitted,



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